

FORM PTO-1390 REV. 5-93		US DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTORNEYS DOCKET NUMBER P00,2002
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371		U.S.APPLICATION NO. (if known, see 37 CFR 1.5) 09/743892	
INTERNATIONAL APPLICATION NO. PCT/DE99/01935	INTERNATIONAL FILING DATE 1 July 1999	PRIORITY DATE CLAIMED 13 July 1998	
TITLE OF INVENTION "DEVICE FOR THE LASER PROCESSING OF WORKPIECES"			
APPLICANT(S) FOR DO/EO/US Bernd-Friedrich SCHOLL, Lothar MÜLLER, Werner JUNG and Stefan DIETRICH			
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:			
1. <input checked="" type="checkbox"/>	This is a FIRST submission of items concerning a filing under 35 U.S.C. 371.		
2. <input type="checkbox"/>	This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371.		
3. <input checked="" type="checkbox"/>	This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay.		
4. <input checked="" type="checkbox"/>	A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.		
5. <input checked="" type="checkbox"/>	A copy of International Application as filed (35 U.S.C. 371(c)(2)) a. <input checked="" type="checkbox"/> is transmitted herewith (required only if not transmitted by the International Bureau). b. <input type="checkbox"/> has been transmitted by the International Bureau. c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US)		
6. <input checked="" type="checkbox"/>	A translation of the International Application into English (35 U.S.C. 371(c)(2)).		
7. <input checked="" type="checkbox"/>	Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. §371(c)(3)) a. <input type="checkbox"/> are transmitted herewith (required only if not transmitted by the International Bureau). b. <input type="checkbox"/> have been transmitted by the International Bureau. c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired. d. <input checked="" type="checkbox"/> have not been made and will not be made.		
8. <input type="checkbox"/>	A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).		
9. <input checked="" type="checkbox"/>	An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).		
10. <input type="checkbox"/>	A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).		
Items 11. to 16. below concern other document(s) or information included:			
11. <input checked="" type="checkbox"/>	An Information Disclosure Statement under 37 C.F.R. 1.97 and 1.98; (PTO 1449, Prior Art, Search Report).		
12. <input type="checkbox"/>	An assignment document for recording. A separate cover sheet in compliance with 37 C.F.R. 3.28 and 3.31 is included. (SEE ATTACHED ENVELOPE)		
13. <input checked="" type="checkbox"/>	A FIRST preliminary amendment. <input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment.		
14. <input checked="" type="checkbox"/>	A substitute specification.		
15. <input type="checkbox"/>	A change of power of attorney and/or address letter.		
16. <input checked="" type="checkbox"/>	Other items or information: a. <input checked="" type="checkbox"/> Submittal of Drawings b. <input checked="" type="checkbox"/> EXPRESS MAIL #EL 655302996US, dated January 16, 2001.		

U.S.APPLICATION NO. (if known, see 37 C.F.R. 1.5) 09/743892	INTERNATIONAL APPLICATION NO. PCT/DE99/01935	ATTORNEY'S DOCKET NUMBER P00,2002		
17. <input checked="" type="checkbox"/> The following fees are submitted:		CALCULATIONS		
BASIC NATIONAL FEE (37 C.F.R. 1.492(a)(1)-(5): Search Report has been prepared by the EPO or JPO \$860.00 International preliminary examination fee paid to USPTO (37 C.F.R. 1.482) .. \$700.00 No international preliminary examination fee paid to USPTO (37 C.F.R. 1.482) but international search fee paid to USPTO (37 C.F.R. 1.445(a)(2) \$770.00 Neither international preliminary examination fee (37 C.F.R. 1.482) nor international search fee (37 C.F.R. 1.445(a)(2) paid to USPTO \$1040.00 International preliminary examination fee paid to USPTO (37 C.F.R. 1.482) and all claims satisfied provisions of PCT Article 33(2)-(4) \$ 96.00		PTO USE ONLY		
ENTER APPROPRIATE BASIC FEE AMOUNT =		\$ 860.00		
Surcharge of \$130.00 for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 C.F.R. 1.492(e)).		\$		
Claims	Number Filed	Number Extra		
Total Claims	2 - 20 =	X \$ 18.00	\$.00	
Independent Claims	1 - 3 =	1	X \$ 80.00	\$
Multiple Dependent Claims		\$270.00+		\$
TOTAL OF ABOVE CALCULATIONS =		\$ 860.00		
Reduction by 1/2 for filing by small entity, if applicable. Verified Small Entity statement must also be filed. (Note 37 C.F.R. 1.9, 1.27, 1.28)				\$
SUBTOTAL =		\$ 860.00		
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				\$
TOTAL NATIONAL FEE =		\$ 860.00		
Fee for recording the enclosed assignment (37 C.F.R. 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 C.F.R. 3.28, 3.31). \$40.00 per property				+
TOTAL FEES ENCLOSED =		\$ 860.00		
		Amount to be refunded		\$
		charged		\$
a. <input checked="" type="checkbox"/> A check in the amount of \$ <u>860.00</u> to cover the above fees is enclosed. b. <input type="checkbox"/> Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed. c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>501519</u> . A duplicate copy of this sheet is enclosed.				
NOTE: Where an appropriate time limit under 37 C.F.R. 1.494 or 1.495 has not been met, a petition to revive (37 C.F.R. 1.137(a) or (b)) must be filed and granted to restore the application to pending status.				
SEND ALL CORRESPONDENCE TO: Schiff Hardin & Waite Patent Department 6600 Sears Tower Chicago, Illinois 60606				
 SIGNATURE Steven H. Noll NAME 28,982 Registration Number				

- 1 -

IN THE UNITED STATES ELECTED OFFICE
OF THE UNITED STATES PATENT AND TRADEMARK OFFICE
UNDER THE PATENT COOPERATION TREATY-CHAPTER II

"PRELIMINARY AMENDMENT"

5 APPLICANT: Bernd-Friedrich SCHOLL et al.

SERIAL NO.: EXAMINER:

FILING DATE: ART UNIT:

INTERNATIONAL APPLICATION NO.: PCT/DE99/01935

INTERNATIONAL FILING DATE: 1 July 1999

10 INVENTION: DEVICE FOR THE LASER PROCESSING OF WORKPIECES

Hon. Assistant Commissioner for Patents
Box PCT
Washington D.C. 20231

DEAR SIR:

15 Amend the above-identified international application before entry into the national stage before the U.S. Patent & Trademark Office under 35 U.S.C. §371 as follows:

IN THE SPECIFICATION

20 Please substitute the specification in the file with the enclosed substitute specification according to 37 CFR 1.125(b). Also, enclosed please find a marked-up version of the specification, separate from the substitute specification, marked-up to show all changes relative to the previous version of the specification.

IN THE DRAWINGS

Please amend the Figure to add English text for clarification as shown on the drawing copy marked in red attached to the Request for Approval of Drawing Changes filed simultaneously herewith.

5 IN THE CLAIMS

On substitute page 3, line 1, change "Patent Claims" to --We Claim:--.

Please cancel all claims without prejudice and add new claims 2, 3 as follows:

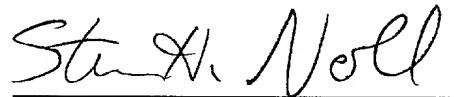
2. An apparatus for laser processing of workpieces with processing surfaces lying diametrically opposite one another, said apparatus comprising:
 - 10 two laser units directed towards one another, said laser units being capable of simultaneous operation, said workpieces placed between the two laser units; an internal beam deflection device for each of said two laser units, said internal deflection device to deflect respective laser beams emitted from said laser units on to regions of said workpieces to be processed; and
 - 15 a movable carrier for moving said workpieces into a radiation region of said laser units, said workpieces being fixed to said movable carrier.
3. An apparatus according to claim 2, wherein said workpieces are plate-like interconnect carriers laminated on both sides.

REMARKS

- 20 The foregoing amendments to the specification and claims under Article 41 of the Patent Cooperation Treaty place the application into a form for prosecution

before the U.S. Patent and Trademark Office under 35 U.S.C. §371. Accordingly, entry of these amendments before examination on the merits is hereby requested.

Respectfully submitted,



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10 Telephone: 312-258-5785

ATTORNEY FOR APPLICANT

S P E C I F I C A T I O N

TITLE

APPARATUS FOR THE LASER PROCESSING OF WORKPIECES

BACKGROUND OF THE INVENTION

5

Field of the Invention

The invention is directed to an apparatus for the laser processing of workpieces having processing surfaces lying diametrically opposite one another.

Description of the Prior Art

In the manufacture of fine surface structures, for example in printed circuit boards, it is known to structure conductive or cover layers with high precision using a laser beam. Given printed circuit boards laminated on both sides, the printed circuit board must be turned over and be brought into the working range of the laser unit a second time.

US 5,678,229 A has disclosed a laser cutting means for plates, whereby the workpiece is arranged between two laser units directed toward one another and whose optical axes are exactly aligned with one another, so that the displaceable guided plates can be given a clean parting cut.

JP 03142090 A has also discloses a laser drilling means for printed circuit boards, whereby the holes are generated by two laser devices whose laser beams given via fixed deflection mirrors likewise have their optical axes exactly aligned with one another. The printed circuit board must be correspondingly shifted for drilling other holes.

Similarly, JP 60177982 has disclosed a similar device for the simultaneous and both-sided marking of plates, whereby, however, the laser beams are adjusted relative to one another from both sides via a beam splitter and multiple, fixed deflection mirrors.

SUMMARY OF THE INVENTION

The invention is based on the object of enhancing the processing precision and shortening the processing duration.

This object is achieved by the invention where two laser units are directed toward one another. These units can be simultaneously operated. Each unit has a deflection device that deflects the laser beam to cover the area of the workpiece to be processed at any time. Since the two laser units can be controlled independently of one another, different patterns can be generated on the two sides without having to move the printed circuit board, as a result whereof the processing time is cut in half. Moreover, the turnover, change and adjustment outlay for processing the second printed circuit board side is eliminated. The position of the workpiece need only be acquired once. The two laser units can be pre-adjusted such that the processing patterns at both sides of the printed circuit board are congruent without differences.

In another embodiment of the present invention, different structures can be produced on the two sides of the printed circuit board without employing masks.

DESCRIPTION OF THE DRAWINGS

The illustrated Figure shows a schematic side view of a carrying frame 1 with two laser units 1, a workpiece 3 fashioned as printed circuit board and a movable carrier 4 fashioned as linear transport means whose transport direction proceeds perpendicular to the plane of the Figure.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The laser unit 2 is composed of a laser beam generator 5 and of a deflection device 6 with which the laser beam can be deflected such in two coordinate directions that it is respectively perpendicular to the workpiece surface. The two laser units are arranged such above and below the workpiece 3 that their emitted beams are directed opposite one another. Both surfaces of the workpiece 3 cover the radiation region. These surfaces can then be simultaneously processed and be subsequently moved to such an extent by the movable carrier 4 that another processing area of the printed circuit board proceeds into the radiation region of the laser unit 2 or until the workpiece 3 has left the laser region.

The workpiece can, for example, be fashioned as normal printed circuit board wherein individual regions must be especially finely structured. However, it is also possible, for example, to employ a conductive film instead of the printed circuit board and to pull this past between the two deflection device 6 in steps. The workpieces 3 can also, for example, be fashioned as relatively small chip carriers and be fixed in a plurality of receptacles of a workpiece carrier that is provided with corresponding clearances for the passage of laser beams. In this case, the carrier 4 seizes the workpiece carrier and guides it such that the individual workpieces successively proceed into the laser beam region.

Although other modifications and changes may be suggested by those skilled in the art, it is the intention of the inventors to embody within the patent warranted hereon all changes and modifications as reasonably and properly come within the scope of their contribution to the art.

ABSTRACT OF DISCLOSURE

An apparatus for the laser processing of workpieces with shortened processing time. Two laser units that can be simultaneously operated are directed towards each other. Workpieces, for example printed circuit boards, are moved between the two laser units such that the two sides of the workpieces are simultaneously processed. As a result the processing time is considerably shortened.

1 PKTS

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APPARATUS FOR THE LASER PROCESSING OF WORKPIECES

The invention is directed to an apparatus for the laser processing of workpieces having processing surfaces lying diametrically opposite one another.

In the manufacture of fine surface structures, for example in printed circuit boards, it is known to structure conductive or cover layers with high precision using a laser beam. Given printed circuit boards laminated on both sides, the printed circuit board must be turned over and be brought into the working range of the laser unit a second time.

The invention is based on the object of enhancing the processing precision and shortening the processing duration.

This object is achieved by the invention according to claim 1. Since the two laser units can be controlled independently of one another, different patterns can be generated on the two sides without having to move the printed circuit board, as a result whereof the processing time is cut in half. Moreover, the turnover, change and adjustment outlay for processing the second printed circuit board side is eliminated. The position of the workpiece need only be acquired once. The two laser units can be pre-adjusted such that the processing patterns at both sides of the printed circuit board are congruent without differences.

With the development according to claim 2, different structures can be produced on the two sides of the printed circuit board without employing masks.

The invention is explained in greater detail below on the basis of an exemplary embodiment shown in the drawing. The illustrated Figure 1 shows a schematic side view of a carrying frame 1 with two laser units 1, a workpiece 3 fashioned as printed circuit board and a movable carrier 4 fashioned as linear transport means whose transport direction proceeds perpendicular to the plane of the Figure.

The laser unit 2 is composed of a laser beam generator 5 and of a deflection means 6 with which the laser beam can be deflected such in two coordinate directions that it is respectively perpendicular to the workpiece surface. The two laser units are arranged such above and below the workpiece 3 that their emitted beams are directed opposite one another. Both surfaces of the workpiece 3 cover. [sic] These

can then be simultaneously processed and be subsequently moved to such an extent by the movable carrier 4 that another processing area of the printed circuit board proceeds into the radiation region of the laser unit 2 or until the workpiece 3 has left the laser region.

5 The workpiece can, for example, be fashioned as normal printed circuit board wherein individual regions must be especially finely structured. However, it is also possible, for example, to employ a conductive film instead of the printed circuit board and to pull this past between the two deflection device 6 in steps. The workpieces 3 can also, for example, be fashioned as relatively small chip carriers and

10 be fixed in a plurality of receptacles of a workpiece carrier that is provided with corresponding clearances for the passage of laser beams. In this case, the carrier 4 seizes the workpiece carrier and guides it such that the individual workpieces successively proceed into the laser beam region.

Patent Claims

1. Apparatus for the laser processing of workpieces (3) with processing surfaces lying diametrically opposite one another, particularly of plate-like interconnect carriers laminated on both sides, characterized in that
 - 5 the apparatus comprises two laser units (2) directed toward one another; the workpieces can be fixed to a movable carrier (4) and can be placed between the two laser unit (2); and in that the two laser units (2) can be simultaneously operated.
 2. Apparatus according to claim 1, characterized in that the two laser units
 - 10 are provided with an internal beam deflection (for example, 5) that covers the region of the workpiece (3) to be respectively processed.

Abstract**APPARATUS FOR THE LASER PROCESSING OF WORKPIECES**

The workpieces [sic] (3) fashioned, for example, as printed circuit board is moved between two laser units whose emitted laser beams are directed opposite one another.

As a result thereof, two sides of the workpiece 3 can be congruently processed simultaneously with short dwell time.

Figure 1

German Language Declaration

Prior foreign applications
Priorität beansprucht

Priority Claimed

<u>198 31 343.8</u>	<u>Germany</u>	<u>13 July 1998</u>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
(Number)	(Country)	(Day Month Year Filed)	Ja	Nein
(Nummer)	(Land)	(Tag Monat Jahr eingereicht)		
			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
			Ja	Nein
(Number)	(Country)	(Day Month Year Filed)		
(Nummer)	(Land)	(Tag Monat Jahr eingereicht)		

Ich beanspruche hiermit gemäss Absatz 35 der Zivilprozeßordnung der Vereinigten Staaten, Paragraph 120, den Vorzug aller unten aufgeführten Anmeldungen und falls der Gegenstand aus jedem Anspruch dieser Anmeldung nicht in einer früheren amerikanischen Patentanmeldung laut dem ersten Paragraphen des Absatzes 35 der Zivilprozeßordnung der Vereinigten Staaten, Paragraph 122 offenbart ist, erkenne ich gemäss Absatz 37, Bundesgesetzbuch, Paragraph 1.56(a) meine Pflicht zur Offenbarung von Informationen an, die zwischen dem Anmeldedatum der früheren Anmeldung und dem nationalen oder PCT Internationalen Anmeldedatum dieser Anmeldung bekannt geworden sind.

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §122 I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application.

(Application Serial No.)
(Anmeldeseriennummer)

(Filing Date)
(Anmeldedatum)

(Status)
(patentiert, anhängig,
aufgegeben)

(Status)
(patented, pending,
abandoned)

(Application Serial No.)
(Anmeldeseriennummer)

(Filing Date)
(Anmeldedatum)

(Status)
(patentiert, anhängig,
aufgegeben)

(Status)
(patented, pending,
abandoned)

Ich erkläre hiermit, dass alle von mir in der vorliegenden Erklärung gemachten Angaben nach meinem besten Wissen und Gewissen der vollen Wahrheit entsprechen, und dass ich diese eidesstattliche Erklärung in Kenntnis dessen abgabe, dass wissentlich und vorsätzlich falsche Angaben gemäss Paragraph 1001, Absatz 18 der Zivilprozeßordnung der Vereinigten Staaten von Amerika mit Geldstrafe belegt und/oder Gefängnis bestraft werden können, und dass derartig wissentlich und vorsätzlich falsche Angaben die Gültigkeit der vorliegenden Patentanmeldung oder eines darauf erteilten Patentes gefährden können.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

- 1 -

IN THE UNITED STATES ELECTED OFFICE
OF THE UNITED STATES PATENT AND TRADEMARK OFFICE
UNDER THE PATENT COOPERATION TREATY-CHAPTER II

"REQUEST FOR APPROVAL OF DRAWING CHANGE"

5 APPLICANT: Bernd-Friedrich SCHOLL et al.

SERIAL NO.: EXAMINER:

FILING DATE: ART UNIT:

INTERNATIONAL APPLICATION NO.: PCT/DE99/01935

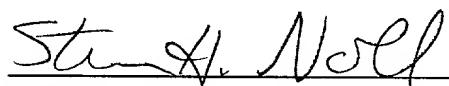
INTERNATIONAL FILING DATE: 1 July 1999

10 INVENTION: DEVICE FOR THE LASER PROCESSING OF
WORKPIECES

Hon. Assistant Commissioner for Patents
Box PCT
Washington D.C. 20231

15 SIR:
Applicant herewith requests approval of the drawing change in the Figure
as shown on the drawing copy marked in red attached hereto.

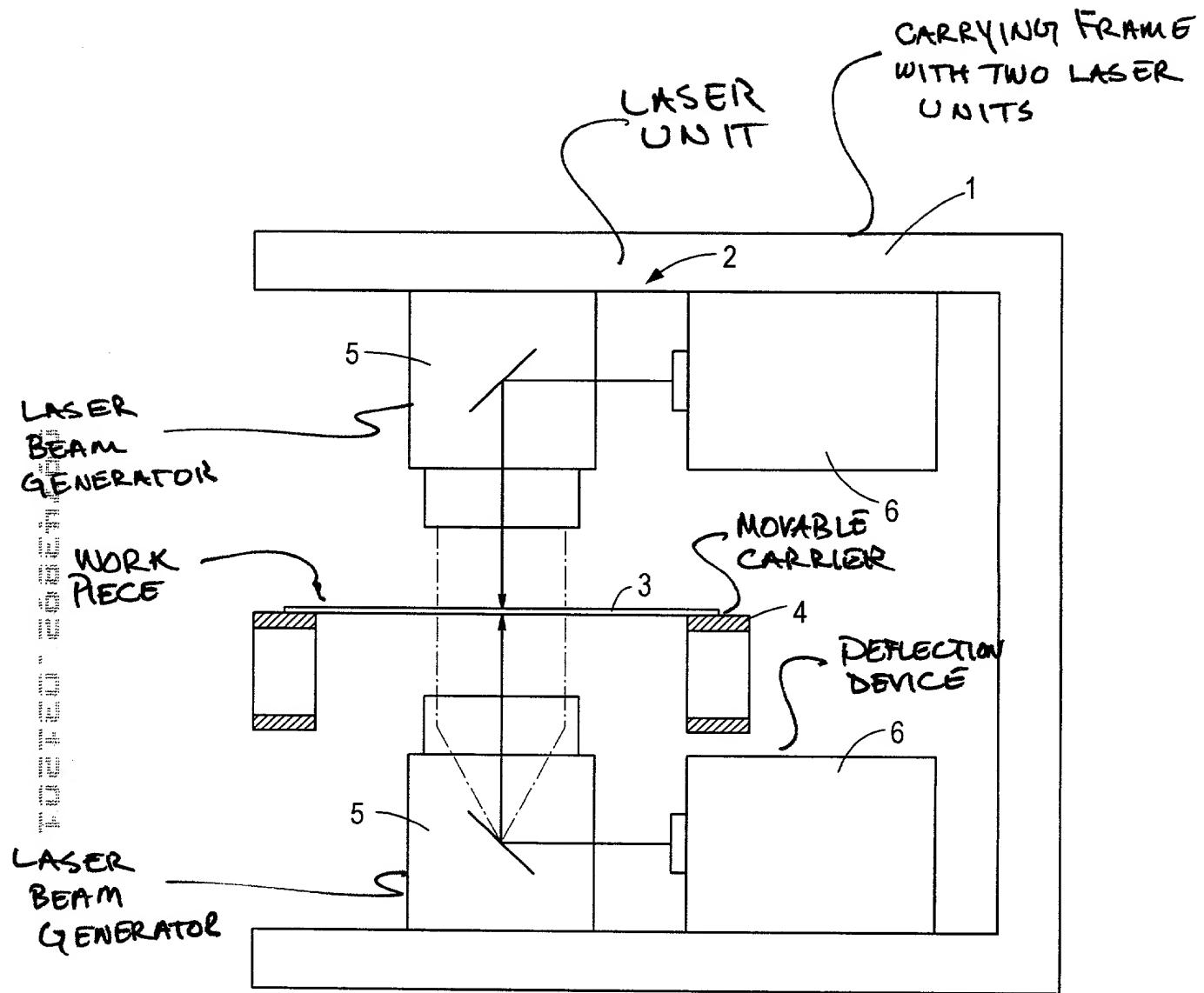
Respectfully submitted,



20 Steven H. Noll (reg. no. 28,982)
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6600 Sears Tower
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Telephone: 312-258-5790

25 ATTORNEY FOR APPLICANT

1/1



M.H

PCT

WELTORGANISATION FÜR GEISTIGES EIGENTUM
Internationales Büro



INTERNATIONALE ANMELDUNG VERÖFFENTLICHT NACH DEM VERTRAG ÜBER DIE
INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES PATENTWESENS (PCT)

(51) Internationale Patentklassifikation ⁷ : B23K 26/08	A1	(11) Internationale Veröffentlichungsnummer: WO 00/03831
		(43) Internationales Veröffentlichungsdatum: 27. Januar 2000 (27.01.00)

(21) Internationales Aktenzeichen: PCT/DE99/01935	(81) Bestimmungsstaaten: CN, JP, KR, US, europäisches Patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).
(22) Internationales Anmeldedatum: 1. Juli 1999 (01.07.99)	
(30) Prioritätsdaten: 198 31 343.8 13. Jul 1998 (13.07.98) DE	Veröffentlicht <i>Mit internationalem Recherchenbericht.</i>
(71) Anmelder (für alle Bestimmungsstaaten ausser US): SIEMENS AKTIENGESELLSCHAFT [DE/DE]; Wittelsbacherplatz 2, D-80333 München (DE).	
(72) Erfinder; und	
(75) Erfinder/Anmelder (nur für US): SCHOLL, Bernd-Friedrich [DE/DE]; Waldenbacher Strasse 43, D-70771 Echterdingen (DE). MÜLLER, Lothar [DE/DE]; Wolfgangstrasse 35, D-69124 Heidelberg (DE). JUNG, Werner [DE/DE]; Unterer Hagweg 34, D-68753 Waglhausen (DE). DIETRICH, Stefan [DE/DE]; Händelstrasse 28, D-76185 Karlsruhe (DE).	
(74) Gemeinsamer Vertreter: SIEMENS AKTIENGESELLSCHAFT; Postfach 22 16 34, D-80506 München (DE).	

(54) Title: DEVICE FOR THE LASER PROCESSING OF WORKPIECES

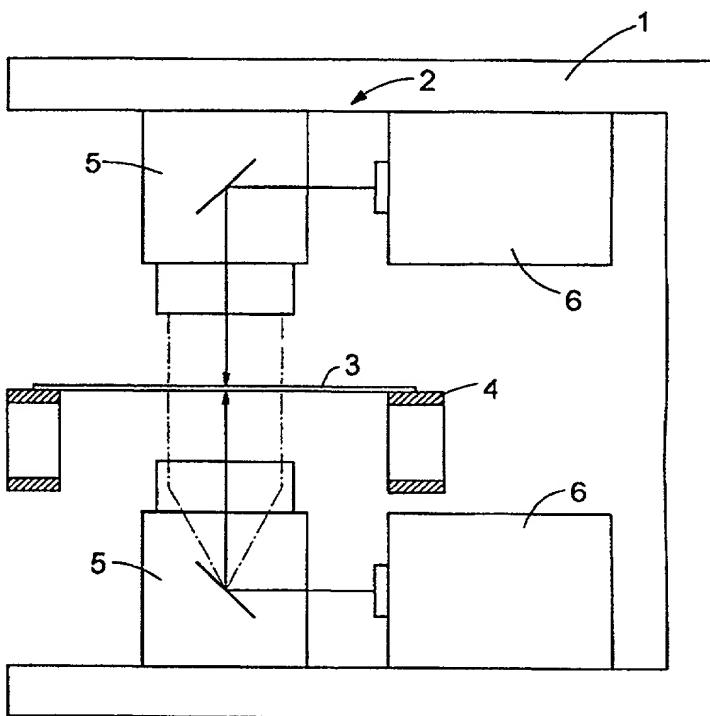
(54) Bezeichnung: VORRICHTUNG ZUM LASERBEARBEITEN VON WERKSTÜCKEN

(57) Abstract

According to the invention, a workpiece (3) embodied, for example, as a printed circuit board, is displaced between two laser units (2) which emit laser beams that are directed towards each other. In this way two sides of the workpiece (3) can be processed simultaneously in coincidence and in a short space of time.

(57) Zusammenfassung

Das z.B. als Leiterplatte ausgebildete Werkstück (3) wird zwischen zwei Lasereinheiten (2) verfahren, deren austretende Laserstrahlen gegeneinander gerichtet sind. Dadurch können gleichzeitig zwei Seiten des Werkstücks (3) mit kurzer Aufenthaltsdauer deckungsgleich bearbeitet werden.



DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION
ERKLÄRUNG FÜR PATENTANMELDUNGEN MIT VOLLMACHT
German Language Declaration

Als nachstehend benannter Erfinder erkläre ich hiermit
an Eides Statt:

dass mein Wohnsitz, meine Postanschrift, und meine
Staatsangehörigkeit den im Nachstehenden nach
meinem Namen aufgeführten Angaben entsprechen,

dass ich, nach bestem Wissen der ursprüngliche, erste
und alleinige Erfinder (falls nachstehend nur ein Name
angegeben ist) oder ein ursprünglicher, erster und
Miterfinder (falls nachstehend mehrere Namen
aufgeführt sind) des Gegenstandes bin, für des dieser
Antrag gestellt wird und für den ein Patent beantragt
wird für die Erfindung mit dem Titel:

VORRICHTUNG ZUM LASERBEARBEITEN VON
WERKSTÜCKEN

deren Beschreibung

(zutreffendes ankreuzen)

hier beigefügt ist.

am 1 July 1999 als
 PCT internationale Anmeldung
 PCT Anmeldungsnummer PCT/DE99/01935
 eingereicht wurde und am _____
 abgeändert wurde (falls tatsächlich abgeändert)

Ich bestätige hiermit, dass ich den Inhalt der obigen
Patentanmeldung einschließlich der Ansprüche
durchgesehen und verstanden habe, die eventuell
durch einen Zusatzantrag wie oben erwähnt
abgeändert wurde.

Ich erkenne meine Pflicht zur Offenbarung
irgendwelcher Informationen, die für die Prüfung der
vorliegenden Anmeldung in Einklang mit Absatz 37,
Bundesgesetzbuch, Paragraph 1.56(a) von Wichtigkeit
sind, an.

Ich beanspruche hiermit ausländische Prioritätsvorteile
gemäß Abschnitt 35 der Zivilprozeßordnung der
Vereinigten Staaten, Paragraph 119 aller unten
angegebenen Auslandsanmeldungen für ein Patent
oder eine Erfindersurkunde, und habe auch alle
Auslandsanmeldungen für ein Patent oder eine
Erfindersurkunde nachstehend gekennzeichnet, die ein
Anmeldedatum haben, das vor dem Anmeldedatum
der Anmeldung liegt, für die Priorität beansprucht wird.

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are
as stated below next to my name,

I believe I am the original, first and sole inventor (if only
one name is listed below) or an original, first and joint
inventor (if plural names are listed below) of the
subject matter which is claimed and for which a patent
is sought on the invention entitled

DEVICE FOR THE LASER PROCESSING
OF WORKPIECES

the specification of which

(check one)

is attached hereto

was filed on _____ as
 PCT international application
 PCT Application No. _____
 and was amended on _____
 (if applicable)

I hereby state that I have reviewed and understand the
contents of the above identified specification, including
the claims as amended by any amendment referred to
above.

I acknowledge the duty to disclose information which
is material to the examination of this application in
accordance with Title 37, Code of Federal Regulations,
§1.56(a).

I hereby claim foreign priority benefits under Title 35,
United States Code, §119 of any foreign application(s)
for patent or inventor's certificate listed below and have
also identified below any foreign application for patent
or inventor's certificate having a filing date before that
of the application on which priority is claimed:

German Language Declaration

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POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)

And I hereby appoint Messrs. John D. Simpson (Registration No. 19,842), Steven H. Noll (28,982), Brett A. Valiquet (27,841), James D. Hobart (24,149), Melvin A. Robinson (31,870), and Mark Bergner (45,877), all members of the firm of Schiff Hardin and Waite.

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